

REMARKS

In the decision from the Board of Patent Appeals and Interferences decided December 10, 2009 (hereinafter, "the Board Decision"), the Board affirmed the Examiner's rejection of claims 32-45 and 68-74 issued in the Final Office Action mailed March 5, 2008. By this paper, Applicants have amended claims 33, 68, and 71 and canceled claims 42, 72, and 74. These claims do not add any new matter. Upon entry of these amendments claims 32-41, 43-45, 68-71, and 73 will be pending in the present application and are believed to be in condition for allowance. Reconsideration of the application in view of the above amendments and remarks set forth below is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 33-38, 41, 42, 68, 69, 70, and 71-73 under 35 U.S.C. § 103(a) as being unpatentable over Chiu, U.S. Patent no. 5,239,199(hereinafter "Chiu"), in view of Jeffries et al., U.S. Patent No. 5,815,371 (hereinafter "Jeffries"), or alternatively in view of either Edfors, U.S. Patent No. 5,050,039 (hereinafter "Edfors"), or Russell et al., U.S. Patent No. 5,432,678 (hereinafter "Russell"). The Examiner also rejected claims 39, 40, 43-45, 74 under 35 U.S.C. § 103 (a) as being unpatentable over Chiu in view of Jeffries and further in view of Cipolla et al., U.S. Patent No. 5,343,366 (hereinafter "Cipolla"), or alternatively in view of Shuff, U.S. Patent No. 5,812,374 (hereinafter "Shuff"). Applicants respectfully traverse these rejections.

As a preliminary matter, Applicants note that the Board Decision did not address or discuss the Examiner's hypothetical combination of Chiu with Edfors, Jeffries, or Russell under 35 U.S.C. §103(a). Instead, the Board appeared to rely solely on Chiu as disclosing each of the recited elements in the analysis of the appeal. *See* Board Decision, pages 11-15. The Board's analysis appears to directly contradict the Examiner's previous admission. As stated in the Final Office Action mailed March 5, 2008, the Examiner admitted that "Chiu discloses the claimed invention except having the support being secured to the surface." Final Office Action mailed March 5, 2008, page 3. While Applicants strongly disagree with the Board's interpretation,

which contradicts the Examiner's interpretation, Applicants have amended independent claims 33, 68, and 71 to further prosecution of the present application.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). However, it is not enough to show that all the elements exist in the prior art since a claimed invention composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *Id.* Specifically, there must be some articulated reasoning with a rational underpinning to support a conclusion of obviousness; a conclusory statement will not suffice. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Indeed, the factual inquiry determining whether to combine references must be thorough and searching, and it must be based on *objective evidence of record*. *In re Lee*, 61 U.S.P.Q.2d 1430, 1436 (Fed. Cir. 2002).

Deficiencies of the Rejection of Independent Claim 33

As amended, independent claim 33 recites:

- a plurality of integrated circuit packages;
- a contact surface electrically connected to each of said packages; and
- a support arranged to engage each of said packages at a point spaced above said surface to prevent movement of said packages relative to said surface, wherein said support comprises a post, wherein the post is directly connected to said surface.

Applicants assert that Chiu does not disclose a "post... directly connected to said surface." Applicants note that in the Board Decision mailed December 10, 2009, the Board

stated that “Chiu’s support...is indirectly secured or connected to the contact surface (i.e., the circuit board surface) by way of leads 14.” Board Decision, page 12. While Applicants assert that this interpretation of “secured” is inconsistent with Applicants specification, Applicants have amended claim 33 to recite that the support “comprises a post” and that “the post is directly connected to said surface and secured to the surface by an adhesive.” (Emphasis added.) As noted by the Board, the device of Chiu is only secured by the “leads 14.” *Id.* Even if the legs 31 of Chiu could be assumed to disclose the “post” of claim 33, these legs are not “secured to the surface by an adhesive,” as recited in claim 33. As stated in Chiu and as acknowledged by the Examiner, the fixture/heat sink disclosed in Chiu “may be sprung open for securing the heat sink of each device...[e]ach leg 31c and 31d moves, for example for “a” to “b” when the legs are pulled apart.” Chiu, col. 3, lines 22-30. As further discussed in Chiu, these legs may be moved to allow “[a]ny bad devices from an array can be removed from the fixture and replaced with a good device.” *Id.*, col. 3, lines 54-56. Finally, Applicants assert that Jeffries, Edfors, or Russell do not cure the deficiencies of Chiu with regard to claim 33.

Deficiencies of the Rejection of Independent Claim 68

As amended, independent claim 68 recites, *inter alia*:

at least one rail coupled to the surface, wherein the rail extends along the sides of the plurality of integrated circuit packages and is configured to only engage an opposed side edge of each of the plurality of integrated circuit packages

Applicants assert that the cited combination does not disclose “at least one rail coupled to the surface ... configured to only engage an opposed side edge of each of the plurality of integrated circuit packages.” Applicants note that, in the Board Decision mailed December 10, 2009, the Board stated:

As a second matter, claim 68 does not include the language “engage the opposed side edges” as recited in the Specification (FF 3). The claim merely requires a rail extend “along the sides of the plurality of integrated circuit packages”

(emphasis added). While the packages have opposed sides (or side edges), they also have top and bottom sides (or side edges). It was reasonable to the Examiner to interpret claim 68 as encompassing a single rail extending along the top sides (or top side edges) of the plurality of packages as disclosed by Chiu. This is so especially in light of the imprecision of the claim language as compared to the Specification (sides versus side edges).

Board Decision, page 14.

As such, Applicants have amended claim 68 to recite that the “at least one rail” is “configured to only engage an opposed side edge of each of the plurality of integrated circuit packages.” (Emphasis added.) In contrast, as noted by the Board, the device disclosed in Chiu extends along the “top and bottom sides (or side edges)” *Id.* Further, claim 68 also recites that “the at least one rail coupled to the surface.” Applicants assert that the fixture 31 of Chiu is not coupled to the surface but, as noted above, is unsecured to allow movement of legs 31c and 31d. Chiu, col. 3, lines 22-30. Finally, Applicants assert that Jeffries, Edfors, or Russell do not cure the deficiencies of Chiu with regard to claim 68.

Deficiencies of the Rejection of Independent Claim 71

As amended, independent claim 71 recites, *inter alia*:

a support, comprising:

a cross piece coupled to the surface and extending over the plurality of integrated circuit packages in a direction transverse to the plurality of integrated circuit packages, wherein the cross-piece comprises a molded plastic; and

a plurality of teeth extending toward said surface, wherein each pair of the plurality of teeth engage a respective one of the plurality of integrated circuit packages on opposing sides of the respective one of the plurality of integrated circuit packages, wherein each of the plurality of teeth comprise a foam material.

Applicants assert that Chiu does not disclose a “support” having “a cross piece [that] only engages a respective top edge of each of the plurality of integrated circuit packages and the cross-piece comprises a molded plastic.” Additionally, Applicants assert that Chiu does not

disclose “a plurality of teeth extending toward said surface, wherein each of the plurality of teeth comprise a foam material.” Applicants assert that even if the fixture 31 of Chiu is assumed to disclose a cross-piece, there is no teaching or suggestion in Chiu that the cross-piece comprises a “molded plastic.” Further, Applicants assert that Chiu does not disclose a “plurality of teeth” that “comprise a foam material.” Again, Chiu does not teach or mention any “foam material,” let alone any support having both “molded plastic” and “foam material” in the manner recited by claim 71. Finally, Applicants assert that Jeffries, Edfors, or Russell do not cure the deficiencies of Chiu with regard to claim 71.

Therefore, for at least the reasons discussed above, Applicants respectfully assert that the cited references, taken alone or in hypothetical combination, do not render the recited subject matter obvious. Accordingly, Applicants respectfully request withdrawal of the pending rejection under 35 U.S.C. §103 and allowance of independent claims 33, 68, and 71, as well as the claims that depend therefrom.

Deficiencies of the Rejection of claims 39, 40, 43-45, and 74

Claims 39, 40, and 43-45 are indirectly dependent on claim 33, and claim 74 is dependent on claim 71. As discussed above with reference to the rejection of independent claim 33 under §103, Chiu does not disclose a “post... directly connected to said surface and secured to the surface by an adhesive,” as recited in independent claim 33. Further, with regard to the rejection of independent claim 71, Chiu does not disclose “a cross-piece” that “comprises a molded plastic” and a “plurality of teeth” that “comprise a foam material.” The secondary references, Jeffries, Cipolla, or Shuff, do nothing to cure the deficiencies of Chiu discussed above with regard to the claims 33 and 71. Thus, the cited combination does not disclose or suggest all of the elements of the claimed invention, and thus, cannot possibly render the claimed subject matter obvious. Accordingly, Applicants respectfully request withdrawal of the Examiner’s rejection and allowance of claims 39, 40, 43-45, and 74.

Conclusion

In view of the remarks set forth above, Applicants respectfully request reconsideration of the Examiner's rejections and allowance of all pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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